



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,990	03/08/2002	Takehiro Ikeda	220325US2	8517
22850	7590	04/20/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			WONG, WARNER	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,990

Applicant(s)

IKEDA ET AL.

Examiner

Warner Wong

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 2-4 and 6-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 2-4 and 6-8 are directed to selectively transmit information from the communication apparatus to the mobile based on whether or not the mobile's information exists in its located terminal table. This is described as one embodiment in the specification on p. 3, lines 25-37, p. 4, lines 1-37, p. 5, 1-17, p. 8, lines 18-37, (entire) p. 9, p. 10, lines 1-32, etc.

Claims 1 and 5 are directed to transmit information from the communication apparatus to the mobile regardlessly (nonselectively). This is described as another embodiment in the specification on p. 3, lines 1-24 and p. 8, lines 11-17.

Note that the two embodiments are mutually exclusive. Hence, claims 2-4 and 6-8 cannot depend on claims 1 and 5 respectively. The specification does not describe how to enable the two mutually exclusive embodiments. **For this reason, this office**

Art Unit: 2616

(based on prior art)

action will reject [^]claims 2-4 and 6-8 based on the assumption that they do not depend on claims 1 and 5 respectively.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Honkala (US 6,785,287).

Regarding claim 1, Honkala describes a method for providing information in a mobile communication system comprising a router (fig. 1, Gateway 24) configured to be connected to a network (fig. 1, GSM Network 12) and the router configured to communicate with a plurality of communication apparatuses (fig. 1, Radio GW 16) which are configured to communicate with mobile terminals (fig. 1, Wireless terminals 18), in order to provide information from the network to the mobile terminals, comprising the steps of:

obtaining the information addressed to a particular mobile terminal from the network to the router (col. 1, lines 18-30 & 53-57, where the gateway 24 (router) obtains

Art Unit: 2616

a paging message (information) for a wireless/mobile terminal (WT) from the GSM network);

transferring the information addressed to a particular mobile from the router to all of the communication apparatuses connected to the router (col. 1, lines 59-63 & col. 2, lines 7-16, where gateway 24 (router) forwards/transfers the paging message (information) for a particular WT 18 (mobile) to all gateways 16 functioning as access points);

receiving the information addressed to a particular mobile at each of the communication apparatuses from the router, and transmitting the information addressed to a particular mobile from each of the communication apparatuses to a corresponding service area of each of the communication apparatuses (col. 1, lines 63-67 & col. 2, lines 7-16, where each radio gateway 16 (communication apparatus) receives the [broadcasted] paging message for a particular WT (mobile) from Gateway 24 (router) and transmits the paging message within its wireless LAN (service area)).

Regarding claim 5, Baker describes a mobile communication system comprising a router (fig. 1, Gateway 24) configured to be connected to a network (fig. 1, GSM network 12), and the router configured to communicate with a plurality of communication apparatuses (fig. 1, radio GW 16) which are configured to communicate with mobile terminals (fig. 1 wireless terminals 18), the router comprising:

an information obtaining part (means) which obtains information from the network, which is information addressed to a particular mobile terminal (col. 1, lines 18-

Art Unit: 2616

30 & 53-57, where the gateway 24 (router) obtains a paging message (information) for a particular wireless/mobile terminal (WT) from the GSM network);

an information transfer part (means) which transfers the information addressed to a particular mobile terminal obtained by the information obtaining part to all of the communication apparatuses (col. 1, lines 59-63 & col. 2, lines 7-16, where gateway 24 (router) forwards/transfers the paging message (information) for a particular WT 18 (mobile) to all gateways 16 functioning as access points), and each of the communication apparatuses comprising:

an information receiving part (means) for receiving the information addressed to a particular mobile terminal from the router, and an information communicating part (means) which transmits the information addressed to a particular mobile terminal, received from the information receiving part to a corresponding service area of each of the communication apparatuses (col. 1, lines 63-67 & col. 2, lines 7-16, where each radio gateway 16 (communication apparatus) receives the [broadcasted] paging message for a particular WT (mobile) from Gateway 24 (router) and transmits the paging message within its wireless LAN (service area)).

1. Claims 2, 4, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Baker (US 5,570,366).

Regarding claim 2, Baker describes:

registering, when each of the communication apparatuses receives a location registration request from a registering mobile terminal located in the corresponding

Art Unit: 2616

service area, information relating to the registering mobile terminal originating the request into a corresponding located terminal table held and used for managing the mobile terminals located in the corresponding service area (col. 5, lines 55-59 for the terminal table and col. 6, lines 44-52 for the registration process);

determining at each of the communication apparatuses (access points) whether or not information relating to a destination mobile terminal of the received information from the network is included in the corresponding located terminal table (col. 5, lines 65-67 and col. 6, line 1);

transmitting when it is determined at the communication apparatus that the information relating to the destination mobile terminal is included in the corresponding located terminal table the received information from the network, from the communication apparatus to the destination mobile terminal (col. 5, lines 1-3 and lines 17-18).

Regarding claim 4, Baker describes all limitations set forth in claim 2. Baker further describes:

deleting, when each of the communication apparatuses (access points) receives a request for deleting the information relating to a mobile terminal that has moved out from the corresponding service area, at each of the communication apparatuses, the information relating to the mobile terminal from the corresponding located terminal table in response to the deleting request (col. 6, lines 47-52).

Regarding claim 6, Baker describes:

an information registration part (means) for registering the information relating to the mobile terminal originating the request into a located terminal table held and used for managing the mobile terminals located in the service area of its own, when the communication apparatus receives a location registration request from the mobile terminal located in the service area of its own (col. 5, lines 55-59 for the terminal table and col. 6, lines 44-52 for the registration process);

an information presence determining part (means) for determining whether the information relating to a destination mobile terminal of the information on the predetermined network received by the information receiving part is included in the located terminal table (col. 5, lines 65-67 and col. 6, line 1);

when the information presence determining part determines that the information relating to the destination mobile terminal is included in the located terminal table, the information communicating part transmits the information from the predetermined network to the destination mobile terminal (col. 5, lines 1-3 and lines 17-18);

when the information presence determining part determines that the information relating to the destination mobile terminal is not included in the located terminal table, the information communicating part does not transmit (discard) the information from the predetermined network to the destination mobile terminal (col. 5, lines 3 & 18).

Regarding claim 8, Baker describes all limitations set forth in claim 2. Baker further describes a second information delete part, comprising:

when each of the communication apparatuses receives a request for deleting the information relating to a moving mobile terminal that has moved out from the

Art Unit: 2616

corresponding service area, the second information delete part deletes the information relating to the mobile terminal from the located terminal table in response to the deleting request (col. 6, lines 47-52).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baker in view of Bertrand (6,876,640).

Regarding claim 3, Baker describes all limitations set forth in claim 2. Baker further describes that:

setting up at each of the communication apparatuses (access points) a delete time for the information relating to the mobile terminal registered in the corresponding located terminal table (col. 6, lines 55-58);

deleting at each of the communication apparatuses the information relating to the mobile terminal corresponding to the delete time from the corresponding located terminal table when current time reaches the delete time (col. 6, lines 55-58).

Baker fails to describe:

Updating at each of the communication apparatuses the delete time each time the location registration request is received from the registering mobile terminal after the information relating to the registering mobile terminal is registered in the corresponding located terminal table.

Bertrand describes:

each of the communication apparatuses (fig. 3, PDSN #120[2]) updates the delete (timeout/expiration) time each time the corresponding location registration request is received from the registering mobile terminal (fig. 3, R-P periodic registration #312 message for a particular PPP from RN #108[2]) after the information relating to that mobile terminal is registered in the located terminal table of its own (col. 8, lines 65-67 and col. 9, lines 1-3, where PDSN refreshes the PPP timeout/expiration).

It would have been obvious to one of ordinary skills in the art at the time of invention by applicant to update the timeout/expiration of a mobile terminal connection entry. The motivation being that "the sending station need utilize the channel only during the time periods required to send the discrete packets" (col. 1, lines 42-45), and refreshing the timeouts via registration requests from the mobile is needed to extend the connection period.

Regarding claim 7, Baker describes all limitations set forth in claim 6. Baker further claim:

a delete time setup part (means) which sets up up delete (timeout/expiration) time for the information relating to the mobile terminal registered in the located terminal table by the information registration part (col. 6, lines 55-58);

a first information delete part (means) which deletes the information relating to the mobile terminal corresponding to the delete time from the located terminal table when current time reaches the delete time (col. 6, lines 55-58).

Baker fails to describe:

a delete time update part which updates the delete time each time the location registration is requested by the mobile terminal after the information relating to the registering mobile terminal is registered in the located terminal table by the information registration part.

Bertrand describes:

a delete time update part (means) which updates the delete time each time the location registration is requested by the mobile terminal after the information relating to the registering mobile terminal is registered in the located terminal table by the information registration part (fig. 3, R-P periodic registration #312 message for a particular PPP from RN #108[2]) after the information relating to that mobile terminal is registered in the located terminal table of its own (col. 8, lines 65-67 and col. 9, lines 1-3, where PDSN refreshes the PPP timeout/expiration).

It would have been obvious to one of ordinary skills in the art at the time of invention by applicant to have a means of updating the timeout/expiration of a mobile terminal connection entry. The motivation being that "the sending station need utilize the channel only during the time periods required to send the discrete packets" (col. 1, lines 42-45), and refreshing the timeouts via registration requests from the mobile is needed to extend the connection period.

3. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Honkala in view of Baker.

Honkala describes a communication apparatus (fig. 1, radio GW 16) for transmitting information from a network (fig. 1, GSM network 12) to a plurality of mobile terminals (fig. 1, WT 18) in a mobile communication system, comprising:

an communication part (means) which communicates information address to a particular mobile whether or not the particular mobile is in a corresponding service area of the communication apparatus (col. 1, lines 59-67 & col. 2, lines 7-16, where each radio GW communicates the information to its wireless LAN for a particular WT 18).

Honkala fails to describe:

a communication apparatus (access points), comprising:

an information.registration part (means) which registers the information relating to a registering mobile terminal into a corresponding located terminal table held and used for managing the mobile terminals located in a corresponding service area when the communication apparatus receives a location registration request from the requesting mobile terminal located in the corresponding service area;

an information presence determining part (means) which determines whether or not the information relating to a destination mobile terminal of the information from the network received by the information communicating part is included in the corresponding located terminal table;

information communicating part (means) transmits the information relating to a destination mobile terminal from the network to the destination mobile terminal, when the information presence determining part determines that the information relating to the destination mobile terminal is included in the corresponding located terminal table, and does not transmit (discarding) the information relating to a destination mobile terminal from the network to the destination mobile terminal, when the information presence determining part determines that the information relating to the destination mobile terminal is not included in the corresponding located terminal table.

Baker describes:

a communication apparatus (access points), comprising:

an information registration part (means) which registers the information relating to a registering mobile terminal into a corresponding located terminal table held and used for managing the mobile terminals located in a corresponding service area when the communication apparatus receives a location registration request from the requesting mobile terminal located in the corresponding service area (col. 5, lines 55-59 for the terminal table and col. 6, lines 44-52 for the registration process);

an information presence determining part (means) which determines whether or not the information relating to a destination mobile terminal of the information from the network received by the information communicating part is included in the corresponding located terminal table (col. 5, lines 65-67 and col. 6, line 1);

information communicating part (means) transmits the information relating to a destination mobile terminal from the network to the destination mobile terminal, when

Art Unit: 2616

the information presence determining part determines that the information relating to the destination mobile terminal is included in the corresponding located terminal table (col. 5, lines 1-3 and lines 17-18), and does not transmit (discarding) the information relating to a destination mobile terminal from the network to the destination mobile terminal, when the information presence determining part determines that the information relating to the destination mobile terminal is not included in the corresponding located terminal table (col. 5, lines 3 & 18).

It would have been obvious to one of ordinary skill of art at the time of invention to incorporate the information registration part (means), the information presence determining part (means) and the information communicating part (means) of Baker into the apparatus of Honkala.

The motivation for combining the teachings is that it ensures that messages are only transmitted to target stations in the communication network that will act on them (Baker, col. 2, lines 32-35).

4. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honkala over Baker as applied to claim 9, and further in view of Bertrand (6,876,640).

Regarding claim 10, Honkala and Baker combined describe all limitations set forth in claim 9. Baker further claim:

Art Unit: 2616

a delete time setup part (means) which sets up delete (timeout/expiration) time for the information relating to the mobile terminal registered in the corresponding located terminal table by the information registration part (col. 6, lines 55-58);

a first information delete part (means) which deletes the information relating to the mobile terminal corresponding to the delete time from the corresponding located terminal table of its own when current time reaches the delete time (col. 6, lines 55-58).

Honkala and Baker fail to describe:

a delete time update part (means) which updates the delete time each time the location registration is requested by the registering mobile terminal after the information relating to the mobile terminal is registered in the located terminal table after the information relating to the mobile terminal is registered in the corresponding located terminal table of its own by the information registration part after the information relating to that mobile terminal is registered in the located terminal table of its own.

Bertrand describes:

a delete time update part (means) which updates the delete time each time the location registration is requested by the registering mobile terminal after the information relating to the mobile terminal is registered in the located terminal table after the information relating to the mobile terminal is registered in the corresponding located terminal table of its own by the information registration part (fig. 3, R-P periodic registration #312 message for a particular PPP from RN #108[2]) after the information relating to that mobile terminal is registered in the located terminal table of its own (col. 8, lines 65-67 and col. 9, lines 1-3, where PDSN refreshes the PPP timeout/expiration).

It would have been obvious to one of ordinary skills in the art at the time of invention by applicant to have a means of updating the timeout/expiration of a mobile terminal connection entry.

The motivation for combining the teaching is that "the sending station need utilize the channel only during the time periods required to send the discrete packets" (col. 1, lines 42-45), and refreshing the timeouts via registration requests from the mobile is needed to extend the connection period.

Regarding claim 11, Honkala and Baker combined describe all limitations set forth in claim 10. Baker further describes the a second information delete part (means), comprising:

Honkala fails to describe:

when each of the communication apparatus (access point) receives a request for deleting the information relating to the mobile terminal that has moved out from the corresponding service area, the second information delete part deletes the information relating to the mobile terminal from the corresponding located terminal table of its own in response to the deleting request (col. 6, lines 47-52).

Baker describes:

when each the communication apparatus (access point) receives a request for deleting the information relating to the mobile terminal that has moved out from the corresponding service area, the second information delete part deletes the information relating to the mobile terminal from the corresponding located terminal table of its own in response to the deleting request (col. 6, lines 47-52).

Art Unit: 2616

It would have been obvious to one of ordinary skill of art at the time of invention to incorporate the information registration part (means), the information presence determining part (means) and the information communicating part (means) of Baker into the apparatus of Honkala.

The motivation for combining the teachings is that it ensures that messages are only transmitted to target stations in the communication network that will act on them (Baker, col. 2, lines 32-35).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warner Wong whose telephone number is 571-272-8197. The examiner can normally be reached on 5:30AM - 2:00PM, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Warner Wong
Examiner
Art Unit 2616

WW



HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600